Estd. Jan. 1923.

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Health

A Journal Devoted to Healthful Living

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Annual Subscription Rs. 1-8. Foreign Rs. 2. Post paid.

Editorial and Publishing Offices :—323, Thambu Chetty Street, George Town, Madras

Vol. XVI. | NOVEMBER, 1938. | No. 11.

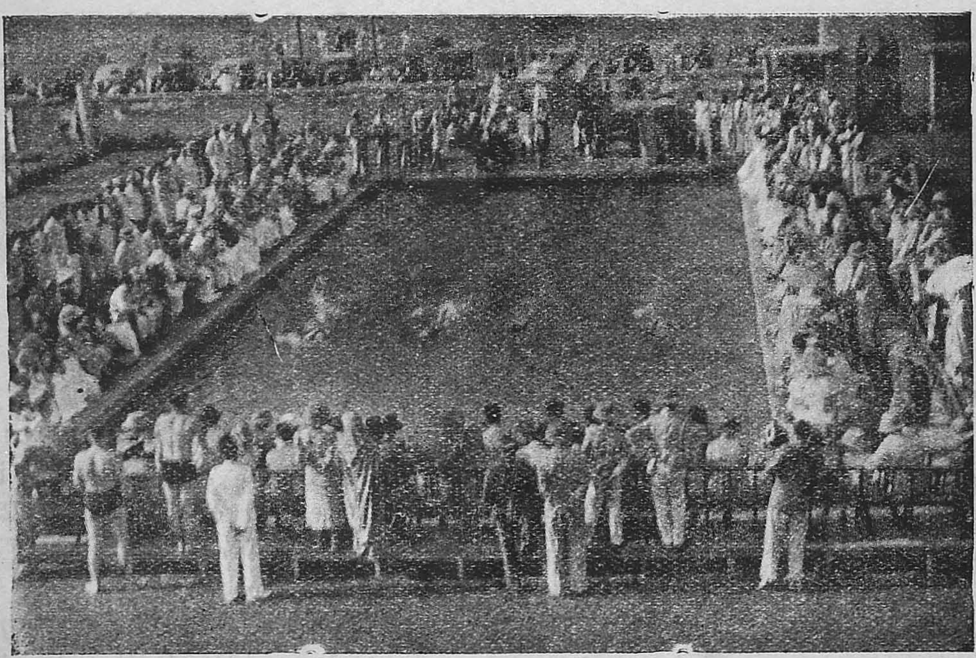
Editorial

'Safety First' Instruction in Schools

We often hear of complaints from parents that, the curricula of studies for pupils reading in primary and secondary schools in India, are over-crowded and that their immature brains have already been taxed to the fullest extent, so much so, they can no longer bear any further load, without causing physical and mental breakdown. While we sympathize with them, we are afraid, we have also been guilty to some extent, by suggesting to the powers-that-be that Hygiene should also be taught compulsorily in schools, thereby adding to the pupils' burden and not a whit relieving them of it. Hygiene has a preferential claim, in our opinion, over all other subjects and must be assigned the first place in the curriculum. This view of ours has been upheld by no less an authority than Lt. Col. A. J. H. Russell, I. M. S., Public Health Commissioner with the Government of India, who, in his Annual Report for the year 1929, has made the following striking observation :—

"The question of Health Propaganda work has been dealt with at some length in this Report for 1929, but it may not be out of place to return to the charge once more and to stress particularly the importance of one phase of that work which is frequently overlooked. There can be no doubt that before any great advancement in public health in India can be attained, preventive medicine must be carried to the rural communities, since the vast majority of the people still live a rural life, untouched by urban influences. In other words, this means a spread of education,

but it must be borne in mind that for primitive peoples there must be a biological background for any system of education which it is proposed to introduce. Agriculture must continue to be the basis of all education in India if the social systems are to survive and for this, we need the assistance of the scientists in spreading the teaching of biology. With the help, and perhaps in spite of, the educationists, the curricula of the primary schools as well as those of the secondary schools and colleges must sooner or later include instruction in hygiene and health, and if educationist pedants maintain that curricula are already over-crowded with subjects made compulsory by examination requirements, then so much the worse for these subjects. One or more will simply have to be scrapped. All that is wanted is a simple syllabus dealing with the main facts in life, and were training colleges equipped to give instructions in this direction, such a syllabus should be easily mastered and taught by the average teacher. By this method a practical step would have been taken to give effect to the spread of information which is becoming more and more urgent, and were that step taken, there might be less misery and unhappiness and there would certainly be a more enlightened public opinion as to the necessity for advance in the standards of public health."



Every one should learn how to swim not only to save one's own life but also to save other people's lives. The above picture shows a race in Swimming between Bombay Swimmers and the British Swimmers on tour in India.

Another subject of equal importance, which must compulsorily be studied in schools is 'First Aid'. It is a sad spectacle to see passers-by blinking, while a person has met with an accident on the road-side or has had sudden epileptic fits or persons bewildered in their own houses where a case of poisoning has occurred or

where his own children's clothing has caught fire or in a tank or in the sea where one is drowning, having gone to deep waters while in the act of bathing. A knowledge of 'First Aid' will save many valuable lives which would have been lost by the time the doctor arrived on the scene. It is, therefore, imperative that every school-boy should know the principles and practice of 'First Aid' and any Government which has the welfare of its subjects at heart should provide for such teaching and training.

A third subject equally important has now come to be recognized and that is, instruction on 'Safety First' principles in schools. In these days of quick transport service and hurly-burly of city life, people especially school-children walk or cross recklessly on the roadsides and become victims to cars, buses, trams, lorries, etc. that ply from one end of the city to the other at a very high speed. In England, every endeavour is made to equip the children to meet the hazards of life safely, and in schools, they are taught what is called the 'road sense'. There are three agencies concerned in this affair—the teacher, the policeman and the parent. It has become a matter of routine to teach 'Safety First' principles in schools in England. The police are also doing their duty efficiently in this direction and when a request to be taken across the road is made, they do it cheerfully and effectively so as to produce in the children's mind, the ideas of 'Safety' and 'Protection' at their hands. But the parents—they come in for a good deal of criticism as lacking in supervision of their children's acts and thereby contributing heavily to the accident rate. The President of the London Teachers' Association, Mr. S. Vanderhook, made a fervent and urgent appeal to the parents at the National Safety Congress held in May 1938, (*Mother and Child*, Vol. IV. No. 4, July '38) and it is worth while to reproduce it here. His appeal to the parents was:—

1. "Let them try to bring the child to school. If this is impossible because the parent has to go out to work, let the parent secure the help of another mother who does bring her child to school. Mothers could in some localities form rotas in which to carry out this work.

2. Children should be encouraged to go to and from school by the same route each day, and this route should be one over which the child has been taken and the dangers made clear at every point.

3. Parents should be encouraged to talk to children about the lessons received in school on road safety.

4. The child should be impressed with the fact that the policeman is there to help.

5. Given a safe place within reach, parents should see to it that children do not play in the road.

6. Play with balls in the street should be especially discouraged.

7. Children should be placed on their honour not to ride behind cars and lorries, and not to play with balls, marbles and tops on the way to and from school.

8. Parents should be asked not to send children on errands which

involve the crossing of busy roads and not to send them at all just before school.

9. Parents should encourage their children to play in parks, school playgrounds and recreation grounds rather than in the streets.

10. Finally, an appeal should be made to the parents to back up the work of the teachers and police in trying to prevent accidents."

Now, what is the position in our city and in the mofussil towns to-day? We shall give it in the words of the 'Inspector-General of Police' Madras, and the Commissioner of Police, Madras, contained in their Administration Reports for the year 1936 :—

The Inspector-General of Police says :—

"The prevention of motor accidents and fatalities on the open roads outside the towns is a bigger question; for, the cost of providing police staffs for systematic control and regulation would be altogether prohibitive. What can be done is being done. The condition and safety of all public service vehicles is being carefully seen to and their departures and arrivals at particular points are being strictly checked and regulated. Speed traps are being set and the work of the different districts in this respect is constantly under my review and comment. The volume of checking on the roads that is possible, having regard to the staff available, is being diligently carried out. Safety First principles are taught to all police recruits in the schools and it might be a good thing if this instruction were extended to the children in all schools. *A pamphlet containing instruction and advice to drivers has been printed in all the vernaculars and is being issued free with all driving licences. This pamphlet has, incidentally, attracted the special notice and commendation of the Safety First Association of India."*

In the city of Madras, there were 303 accidents in the year 1936, of which 22 proved fatal. The Commissioner of Police, Madras, observes, with regard to accidents in the city, as follows :—

"General causes :–The most general causes of accidents are :—

Motor vehicles :—Excessive speed–inefficient brakes–careless driving.

Pedal cyclists : — Lack of road sense generally : entering main roads from side streets and lanes without paying any attention to the rules of the road ; suddenly turning or crossing the road in front of other vehicles without signalling their intention to do so.

Pedestrians :—Lack of road sense generally, lack of pavements. Many of those involved in accidents are children and adult illiterates who suddenly cross the road regardless of their own safety.

Most accidents occur between 9 and 11 a. m. and 4 and 7 p. m., the peak hours being between 10 and 11 a. m. and 5 and 6 p. m. No accident occurred at a police-controlled crossing.

Mount Road has proved to be the most dangerous thoroughfare in the

City during the year, contributing 46 accidents of which 3 proved fatal.

Wall Tax Road, North Beach Road; China Bazaar, General Hospital Road, Poonamallee High Road, and Broadway come next with 11, 10, 9, 7, 7 and 7 cases respectively. The remaining cases are distributed throughout the City.

Many of the few existing pavements are blocked by obstructions in many cases licensed by the Corporation and with the rapid increase of motor traffic, pavements and islands and fixed crossing places are becoming more and more an urgent necessity."

There seems to be some stir now and the Corporation is widening some of the foot-paths and repairing some others and the Police are also prosecuting pedestrians walking in the middle of the road. But so long as these foot-paths are occupied by petty vendors, pick-pockets, homeless labourers, beggars, lepers, and what not, these foot-paths cannot be availed of by pedestrians and there is no use blaming them if they walk in the middle of the road, only to save themselves from the horrors and annoyances of these unwelcome intruders—not to mention the risk of catching infection of certain dangerous and loathsome diseases such as leprosy, tuberculosis, etc. We hope the Corporation will simultaneously take steps to rid these foot-paths of these pests and make them safe for pedestrians to walk on unmolested. We would also appeal to the Government to impart Safety-First instruction in all Secondary schools and make it a compulsory subject. As Lieut. Col. Russell says, one or more subjects must be scrapped, if human lives are to be saved.

TO A CONSUMPTIVE FRIEND

By R. R. Sukla, M. O., Kekri.

I. Since health thou seekest, Friend of mine,
Go, learn this while you may,
That nature's aid must be invoked,
To drive thy ills away.

II. No panacea waits for Thee,
But do not feel dismayed,
For God's good gifts of sun and air,
Are on thy side arrayed.

III. The fields and trees, the golden sun,
The sky and mountains blue,
Will bring you close to Nature's God,
And win back health for you.

IV. Then go Thou forth resolved to live,
No matter what the clime,
As near to nature as you can,
And out-doors all the time.

V. So plain a life may hold less charm,
Than one more full of strife,
But health is worth a ton of wealth,
In summing up a life,

Prevention of Leprosy

—By S. K. Ganapathi Aiyar, L.M.S.,—

Regd. Medical Practitioner, Tinnevelly Town.

Leprosy is a chronic infectious disease caused by the Lepra Bacillus. It may attack in 2 forms:–

(1) in the form of nodules in the skin or mucous membranes called nodular leprosy.

(2) or by changes in the nerves called nerve leprosy.

In many cases they are found together. From a study of the ancient literature it is found that the disease has been prevalent in the world from immemorial times. It prevailed in Europe during the Middle Ages but as many precautionary measures were taken by establishing Leper asylums and by taking other measures, the disease is gradually on the decline in Europe. But, in India, owing to the flow of people from the healthy villages to the congested towns, Leprosy and Tuberculosis are on the increase. There are supposed to be more than 1 million people infected with leprosy which works out to 1 in 300 which is rather too high a proportion and the State and the general public must co-operate with each other immediately and take adequate preventive measures to eradicate the disease.

Causes.—It has been proved that Bacillus Leprae discovered by Hansen of Bergen is the cause of the disease. In appearance it looks like Tubercle Bacillus. Persons debilitated by disease and of unclean habits are prone to this disease. Insufficient nutrition and food deficient in the essential vitamins act as predisposing causes. People with anæmia or tuberculosis are liable to be attacked by the disease when there is a near source of infection.

Mode of spread.—The infection is spread by inoculation, heredity and by direct infection from the open sores and from nasal secretions. The Bacilli are found in the saliva and phlegm of patients with leprous lesions in the mouth and throat and in abundance in the nasal secretion.

Bathing ghats, railway-trains, motor buses etc., are the frequent places of infection. In a bathing-ghat in the river or tank when an infected person washes his clothes on a stone, some of the infected matter sticks to the stone and when a non-infected person places his clothes on the same spot his clothes become infected and thereby the infection spreads to him. The same occurs when lepers travel by trains and motor buses.

The nasal secretion and phlegm of infected persons are found on the roads, streets and in the houses where lepers live. When our feet or hands come in contact with dust they become contaminated but if properly washed where we return after walking on the roads we can prevent the disease. It is always better to wear shoes when going out. Fairs, temple festivals etc., where all sorts of people congregate are potent factors for the spread of the disease. Leprosy is not a rapidly infectious disease like Cholera

or Typhoid fever but takes 1 to 5 years to become settled in the body and to show itself off. When it has once settled itself it is very difficult to eradicate it except in its initial stages.

Diagnosis.—Leprotic patches are generally mistaken for ring worm and vice versa. Neuritis, Raynaud's disease and syringo-myelia are also wrongly diagnosed for the nervous form of leprosy. Leprous nodules are incorrectly diagnosed as Lupus, cystic tumours and sebaceous cysts.

On microscopical examination, presence of Lepra Bacilli in the nasal secretion or nasal scrapings and in a small finely cut piece of nodular tissue, will clear the diagnosis.

Modes of prevention.— Leprosy prevention can be done in the following ways.

1. Personal cleanliness.
2. Fresh air and physical exercise.
3. Good diet.
4. General measures to be taken by the State and the general public.

We should be clean in our clothing and wash our body well while bathing, avoid crowded and congested places, should have fresh air and take physical exercises, and have good diet. Our orthodox people generally bathe and wash their clothes after a railway journey or even after a journey in bullock carts or jutkas. This custom is a good one, well-worth being imitated as thereby we can prevent attack by many infectious diseases. The diet should be rich in the essential vitamins.

If a person in a house gets the disease he should be segregated in the house. He should live in a separate room and have his own separate bedding, utensils etc., and he should keep himself aloof from others.

As for general measures to be taken by the State and the general public they should institute a preventive campaign against Leprosy on the lines of scientific research, educational propaganda, leprosy surveys, training of medical practitioners in modern methods of diagnosis and treatment and by the establishment of Leprosy clinics, asylums and settlements. The Indian Branch of the British Empire Leprosy Relief Association is doing something in this direction. In the Leprosy Settlements infected people are segregated and the poor among them can be given some occupation so that they can earn something during the course of medical treatment for a prolonged period. The State and the General Public, should establish associations and carry out propaganda about the mode of infection and measures to be taken for prevention.

Leprosy is a curable disease if properly treated in the early stages but in advanced stages it is extremely difficult to treat and it may take some years of prolonged treatment for its cure. If a person has got a long-standing ulcer or patch on the skin or small tumour-like bodies over the ear lobes or on any part of the body he should consult a doctor and take appropriate measures.

The drug treatment of Leprosy by Chaulmoogra oil was discovered by our ancients in India, and it is now utilised in Western Medicine in improved form orally and by injections.

Healthy Development of Children

By
U. Venkata Rao,
Medical Practitioner,
" Sudarsana ", Madras.

"THE races march forward on the feet of Children". " Nations are gathered out of nurseries ". "The child is the father of man ". Though heredity has something to do, much can be done by education in childhood to mould the physical and mental character of a person. A true education does not neglect the body. Many diseases are preventable by a little care at the time of the attack and the general malnutrition of the people is due to want of proper care during their childhood.

The proper development of a child, physical, mental and moral, depends on :—

1. **Home and Environments.** — The home is the only training ground of children. " Home in one form or other is the great object of life." Every child when tired or teased says " I want to go home." Home is the last place of shelter even to the worst drunkards. Therefore, the home is the most potent educational centre of childhood. At home, the mother is the best and the only teacher. It is she who feeds, clothes, conducts, satisfies curiosities, develops ideas and character. So, the mother should be diligent, patient, loving and of good principles. She must maintain good Home-discipline. Environment is also very important for the proper development of a child. The child grows by observation. Therefore, the objects shown to the child should be well chosen. The surroundings should be clean, pure, beautiful, no matter if one lives in a cottage, mansion or a palace. When the tender mind is impressed with ugly things and disorderliness, it is difficult to remove the first impressions. In bad environments the child becomes rude and hard in nature, cannot learn to express love and compassion. Therefore, healthy or unhealthy environments can make or mar the growing life. It is sad to think that the majority of our children are brought up in unhealthy environments and this greatly affects their mental, moral and physical growth.

2. **Bad Housing.**— Many children in India, especially in rural areas and industrial centres, live in bad houses with little or no ventilation. The rooms are not only dirty, ill-ventilated, but stored with all sorts of old rubbish things. Poverty is no excuse for lack of neatness and cleanliness. Every one can keep the walls and floor clean, windows and doors open and arrange the furniture in a proper way. In rural areas even the rich do not know how to keep the house clean. The rooms are ill-ventilated and things are thrown pell-mell and all sorts of grains, firewood and charcoal stored anywhere and everywhere

and even the cattle are kept next to the living room. Poultry and dogs roam everywhere. Proper drainage is unheard of, good latrine is still wanting. Bad, dirty, used water is allowed to stagnate all round the house, so that flies and mosquitoes, grow and play havoc on the health of inhabitants. Proper education on sanitation and building houses small or big to get enough sunlight and air and to give privacy and convenience with a good drainage are sadly needed.

A Home with unhealthy surroundings. Here Cattle are kept and Cow-dung heaped up in front of it.

3. **Wrong Feeding and Irregular Meals.**—" A well balanced diet meant a well balanced body. Not only the general health of the individual, but also the quality of teeth, the efficiency of the digestive system, the stability of nervous system, the quality of mental activity, power of will, strength and character, happiness or nursery of every day living are profoundly affected by the foods and the regime of foods during childhood ". Due to ignorance children are fed with wrong quality and quantity of food at irregular intervals. Many out of poverty are not able to give nutritious food and others out of ignorance feed them whenever they cry. So, some children get too little good food and many get too much and so they get sick and weak. Children early acquire the habit of picking up things from the floor and put them into their mouths, often leading to serious disorders. Some acquire the habit of sucking their thumb. The child must be taught not to pick up things from the floor and suck them. The habit of washing hands before and after eating must be taught as early as possible. Regularity and punctuality in giving meals are necessary. The constant eating of sweets, biscuits, chocolates and candies should be discouraged. The children should not be allowed to play with foods,but must be taught to finish their meal in reasonable time and they should not be disturbed during meals. The food must be well protected from dust, dirt and insects, properly prepared and simple. Cheerfulness must be encouraged. The child should not be fed when excited, angry, cross, crying or over-tired. The chief causes of indigestion in children are over-feeding, irregular feeding, allowing the child to choose or refuse food, giving too much mushy food and insufficient hard food, giving too much milk, coaxing the child to eat when not hungry or tired and eating all sorts of food—stale or improperly cooked or contaminated.

4. **Malnutrition.**—Generally caused by bad Hygiene and faulty diet,

ill-fed on poor quality of food, insufficient food, poverty—being born of ill-nourished parents. India owes her poor physique to her habitual underfeeding; over 90per cent of the population are agriculturists and the majority of them cannot afford to have even one square meal a day. Wrong food as tea, coffee, pastry, sweets and meat in excess, frequent atmospheric changes, constipation or diarrhoea, lack of proper sleep and rest, too much restriction at play, diseased tonsils, adenoids, attacks of whooping cough, tuberculosis etc. are other causes of malnutrition.

Cause of Defective Eye-Sight of Students

By Kartic Chunder Dutt, L.M.S., M.R.A.S.,

Chief Medical Officer, Sonepur State, India,
Member, All-India Ophthalmological Society.

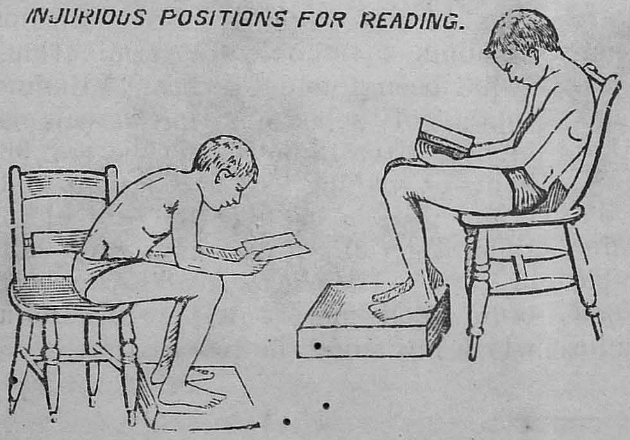
Now-a-days, in spite of all the vaunted teaching of modern hygiene in schools and colleges, one finds that defective eyesight of the student population is increasing by leaps and bounds. Within living memory, one can recall a day when spectacles were rarely used before the age of 40 or 45, and that, not for any real defect in the eye, but for old-age hyperopia, that is, natural long sight of old age. But, now-a-days, the first thing that attracts the notice of a visitor on entering the class room, is spectacled eyes of the students, both boys and girls, and this is generally for myopia or short sight, as well as for other defects in the eye. In fact, the defects in eyesight are now appearing at an age when there should be perfect vision, and, when children should have eagle eyes. Once eyesight in children becomes defective from some cause, there is a tendency for the defect to increase, and, ultimately to result in graver defects. Thus, high myopia or short sight, requiring glass of minus five D or more than minus five D, is really dangerous, and has got the risk of hæmorrhage, or detachment of the retina, which means blindness. Some students suffer from astigmatism, or defect in the roundness of the cornea. Apart from defects in vision amenable to correction by glasses, there is defect in the acuteness of vision in many. In some cases, there is dimness of vision or night-blindness. It has been found that many students often suffer from frontal headache and pains about the eyes, owing to inevitable strain, in reading, upon the eyes which are more or less defective. Statistics of the percentage of defects have been made and published, but so far the progress towards the worse has not been checked.

There has been such a universal use of spectacles among students, both male and female, that glasses have become a fashion of the day, like ornaments. Little boys and girls

have even taken a fancy to wear spectacles. This tendency is positively dangerous. Apart from the risk of producing a real defect in the eyes from the sham use of spectacles, there is the risk that the eyes may be injured from the breaking of the glasses during play. This tendency should therefore be nipped in the bud.

As regards the causes of defective sight, the most important ones will be considered. When the main causes of production of defective vision are explained to the children, they themselves may take care of their eyes and the teachers and guardians may also warn them if they are negligent. Since defective vision, as a rule, results not from a single cause, but from various causes acting together, all the main factors noted below should receive adequate attention for avoiding them. These causes may be divided into local, *i.e.* concerning the eye itself, and general, *i.e.* concerning the body in general, including bodily hygiene, food, and nutrition of the body in general. Some simple rules should be observed for avoiding the local causes. These consist mainly of factors which cause eye strain. Thus, straining the eyes, reading in dim light, or using very strong light, should be avoided. Students should never indulge in reading while travelling on a moving vehicle, such as a car, a bus, or a train. In such a case, the image of the letters of the book cannot be accurately focussed by the natural photographic mechanism of the eye on the macula which is the most sensitive spot on the retina for receiving visual images. For the same reason, Cinemas and moving pictures, are injurious to the eye producing great strain on it. Similarly, looking on dazzling light, such as the arc light is harmful. The Ultra-violet rays of the Sun are harmful to the retina, and cause sun-blindness. This fact was known a thousand years ago, and Khana's injunction against going to the east in the morning is significant. Then again, the student should not concentrate on reading for long hours without a break, as this produces eye strain. The most potent cause of myopia, *i.e.*, short sight, is the bad habit, common in students, of reading or writing while holding the book too near the eye. The book should never be held nearer than nine inches to the eye. The bad habit of looking into the book from a point nearer than nine inches, gradually, causes short sight by producing such anatomical elongation of the optic globe in the diameter from before backward, that the image of a distant object cannot be properly focussed on the retina. Sometimes, students hold the book sideways, or in a slanting fashion, so that the image of the letters pass through the various photographic media of the eye in a slanting direction. This also produces eye strain and defect in the eye. The book should always be held directly in front of the eye at

INJURIOUS POSITIONS FOR READING.



a distance of nine to twelve inches for the purpose of near vision and in such a fashion that the light falls properly on the book and not on the eye.

It must be understood that the eye is the most delicate organ of the human body and as such, it requires a delicate care for its preservation. Moreover, the eye is the most precious organ of the human body, and therefore, none can afford to neglect the precautions noted herein.

There are many eye diseases which are infectious. Students should keep themselves aloof from those who have got conjunctivitis. Certain diseases such as, septic mouth, septic teeth, septic tonsils, running ears and nose, are the causes of eye infection. Therefore, these diseases should be treated timely and properly, to save the eyes from infection, and consequent blindness.

The food beneficial for the eyes are those which are wholesome and nutritious. As often happens, children are fond of some particular kind of food, varying in their individual liking. They generally partake of the food they like in larger quantity while they leave off other things which are not to their individual taste. But, a mixed and well balanced diet is better than disproportionate quantity of the dish of their individual choice, which makes the diet one-sided.

There are certain things which are good for the eyes, specially those containing Vitamin A and other Vitamins. Three thousand years ago, Charak and Susruta observed that fresh milk was good for the eyes. We now know that fresh milk contains Vitamin A and other Vitamins in a palatable and readily assimilable form. Moreover, milk is a perfect food and contains proteins, fats, calcium and carbohydrates in a well-balanced form as is required for the nutrition of the eye and of most delicate nerve ramifications of the retina. Cod-liver oil and fresh eggs are also good for the eye, vegetables such as carrots, beans, cabbages, onions, green vegetables, lettuce, peas, spinach, etc. and fruits like tomato, mango, lemons, oranges, papaya, etc. are also full of vitamins and good for the eyes. Of mineral salts, calcium phosphate which is an important ingredient of bones and brain is very good for the eye. Perhaps modern students do not know that *Panchasashya* or germinating five cereals are essentially necessary to perform pujas, and that in the Punjab and Rajputana, germinating chena, moong and peas with salt and chillies or Gurh (jaggery), even now form an invigorating cheap tiffin. It has been recently discovered that germinating cereal is a perfect diet containing vegetable protein, starch, germ oil, and all the vitamins combined in proper proportions. Indeed, in germinating peas, nature provides dormant energy made kinetic in a wonderful way. Students will find just the food required for growing bones, nerves, brain and the eyes in germinating pulses. Thus, moong, chena and barbatti should be washed and put in a pot containing enough drinking water to soak these. After 24 hours the water which contains Vitamins should be drunk. Then the soaked cereals should be kept in a moist cloth for 24 hours or 48 hours for germinating. It has been found that the Vitamin content of the germinating cereals is highest after 48 hours and before 96 hours of soaking. Every student and brain worker should partake of a tiffin of germinating cereals with salt or gurh as the cheapest and the best brain food most suitable for India which has stood the test of time.

Nutrition in Health

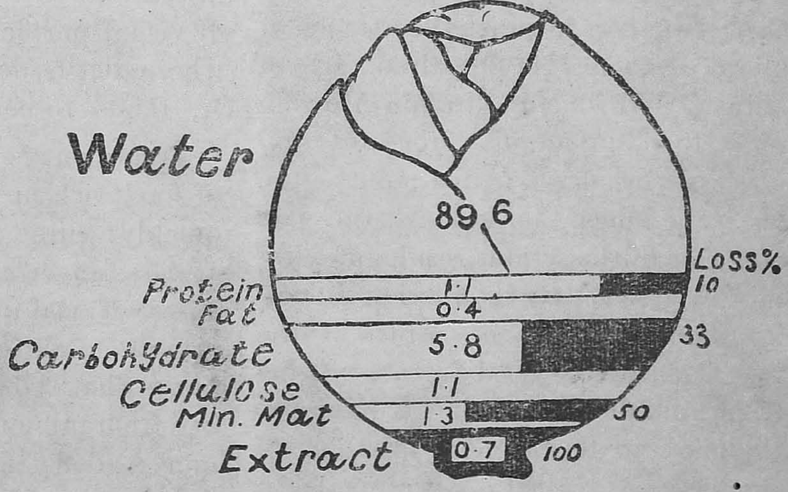
By Dr. M. A. Ramachandra Rao, M.B., C.M.,

Chief Medical Officer, Puducottah.

(Continued from P. 225, Vol. xvi. No, 10, October' 38, issue of Health.)

VITAMINS are the most important of food factors. Every one and the general public all over the world, have caught hold of the term "Vitamin" although they know nothing of it and they think that it is a mysterious thing. Only 3 were discovered in 1932. Now 8 vitamins have been discovered, of which important vitamins are 4 in number.

Vitamin A.—It is found in animal fats, in whole milk, curds, butter; unadulterated ghee, egg, yolk, liver, fish etc. Its richest natural source is fish liver oil *e. g.*, Halibut liver oil and cod liver oil. While vegetable foods do not contain vitamin A, the pigment carotene which is present in many such is able to fulfil the physiological functions of vitamin A in the body. Vitamin A requirements can thus be got by the consumption of suitable vegetable diets. Leafy vegetables, such as spinach, lettuce, cabbage, Amaranth leaves, coriander leaves, drumstick leaves, and ripe fruits, such as, mangoes, pappaya, tomatoes, oranges etc., are rich in carotene. Carrots are also a good source. Our knowledge of vitamin A requirements is at present limited. It may be said that a well balanced diet should contain a daily minimum of 3000 international units. In Western Countries, a large proportion of vitamin A activity is derived from animal foods. Animal foods, rich in vitamin A, are expensive and in the East, it will usually be found that the easiest and the cheapest way of ensuring sufficiency of vitamin A units is to increase the intake of green leafy vegetables. For example, 3 ozs. of



Cabbage contains Carotene.

Amaranth will supply more than 3000 international units and cover adult requirements. The needs of children of school-going age, which may possibly exceed those of adults, can be covered inthe same way by a high intake of green leafy vegetables. In the case of infants and young, sickly and malnourished children of all ages, vitamin A may be supplied in the form of a daily dose of fish liver oil.

Vitamin A Deficiency-Disease.—Now I shall relate to you what happens if your diet is deficient in vitamin A.

An animal on a vitamin A deficiency diet stops growing as soon as it has used up the stores of the vitamin contained in the liver and other tissues. The layer of cells in the surface of the skin and mucous membranes—the epithelium become degenerated, the vital activity of the cells is lowered and they become dry and their capacity to resist the attacks of micro-organisms is impaired. In an animal, fed long on vitamin A deficiency food, infectious processes and abscesses occur at many points—the eyes, the lungs, the kidneys, the ears etc. One of the serious results of vitamin A deficiency is a lesion affecting the conjunctiva or cornea of the eye. There are several degrees ranging from mild dryness of the Co. (Xerophthalmia) to destructive invasion of the cornea called Keratomalacia. Keratomalacia has often been observed in human beings; during the War,it occurred in Denmark among poor children fed on oatmeal and skimmed milk who went short of vitamin A because Denmark was selling for enormous prices more butter and other animal fats to Germany than she could spare. A distinguished Danish physician, Blotch by name, realised that the serious eye-disease affecting ill-fed children was due to diet deficiency and showed that it could be prevented by a well balanced diet containing animal fat and cured by cod-liver oil, if not too far advanced. In many parts today, blindness is the result of Keratomalacia due to vitamin A deficiency.

Another less serious eye disease, which occurs as a result of vitamin A deficiency, is Hemenalopia, inability to see in a dim light. The retina is normally capable of forming a substance called visual purple of Rhodopsin, which sensitises it to vision in dim lights. Visual purple is bleached by strong light and disappears from the retina and before the eye exposed to bright illumination can adapt itself to a dim light, visual purple must be reformed. It seems that vitamin A is in some-way necessary for formation of visual purple so that an individual whose diet is deficient in the vitamin A, tends to become " Night Blind ".

Treatment is simple. Consumption of food, rich in vitamin A, will very quickly cure dietetic Hemenalopia after a few meals of liver or a few doses of cod-liver oil. Vitamin A is also called anti-infective vitamin. We know that laboratory animals suffering from pronounced degrees of vitamin A deficiency fall victims to infectious invasion. Blotch and others have observed that a high proportion of children suffering from Keratomalacia die of Broncho-Pneumonia.

Vitamin B.—Vitamins are definite chemical entites. In a normal dietary, they are present in quantities too small to yield any appreciable contri-

bution to the energy supply of the body.

Dr. C. Eijkman, who first produced experimentally a disease of dietary origin, concieved the idea that Beriberi, a common disease in the East, is due to faulty feeding. The disease, as Eijkman observed it, occurred in Javanese whose stable food was polished rice and found that birds fed on polished rice and nothing else, developed a paralytic condition which he considerd analogous to the human disease. Birds fed on unmilled rice remained healthy and rice polishings fed apart from highly milled rice, prevented or cured the paralysis. Other foods *e. g.*, beans and dhals were found to be effective in cure and prevention. It was clearly demonstrated by Eijkman and his colleagues, that polished rice produced disease not because it was poisonous or because it was deficient in portein and salts but because it lacked a "Certain Something". That *certain something* is known to-day as the "Anti-Neuritic Vitamin or vitamin B."

Vitamin B_1.—A whole group of B. vitamins is included under this head. It is water soluble vitamin and is widely distributed in nature.

Vitamin. B_1. Commonly known as "Anti-Beriberi" vitamin, is found in un-milled cereals, pulse, eggs, fruits, nuts, most vegetables, glandular organs such as liver and to some extent muscle, meat, milk. A diet largly composed of milled rice contains insufficient vitamin. B_1 and may give rise to Ber-beri which is common in certain parts of India. Parboiled rice, even when milled, contains vitamin B_1.

The vitamin B_1 requirements of school children and adults may be estimated at 300 international units per day. If 4 ozs. of unmilled cereal, 6 ozs. of leafy and other vegetables and 2 to 3 ozs. of pulses are consumed daily, it is probable that enough of vitamin B_1 will be obtained, even if the rest of the diet is composed of milled rice. The smaller the supply of vegetables, pulses, and fruits, the more important it becomes to avoid a preponderance of the milled cereal in the diet. Even when 9/10 of the diet is based on rice, Beriberi will not usually follow if the rice is consumed in the "home pounded form". If rice is subjected to several washings before consumption, a great proportion of whatever vitamin B_1 it contains may be removed, and there will be a loss of mineral matter. Rice which is mouldy and full of weevils is likely to be subjected to most washing. Such rice is consumed by the very poor whose diet contains only small quantities of food other than rice, and who are in greatest need of the elements lost in washing.

It is noteworthy that milk, which is a good source of most of the important food factors, is not rich in vitamin. B_1.

Vitamin B_2.—(term covering several vitamins), is an important food factor. All cereal foods are poor sources of it, milled rice being the poorest. Certain of the common pulses contain it fairly abundantly; among these, are Bengal gram, black gram, and red gram. Green leafy vegetables and certain roots and tubers, are fairly rich, but fruits in general probably do not contain much of this vitamin. Its richest sources are yeast, milk products (including skimmed milk, butter milk, curds and cheese), lean meat, liver, eggs, pulses and green vegetables.

"Soreness" of the angles of the mouth and the tongue is probably caused by deficiency of vitamin B_2. It occurs most commonly in those whose diet consists largly of milled rice. Rapid cure follows the daily consumption of $\frac{1}{2}$ to 1 oz. of dried yeast, $\frac{1}{2}$ to 1 pint of good milk,or 2 to 3 eggs. The condition is very commonly seen,

in students from Boarding houses.

Vitamin C—Vitamin C or ascorbic acid, the vitamin which prevents scurvy, is found in fresh fruits and vegetables. Among vegetables, the green leafy varieties are the best sources of this vitamin. When vegetables become dry and stale, most of this vitamin C, originally present, is destroyed.

Pulses and cereal grains in the ordinary state contain no vitamin C. When, however, they are allowed to sprout, the vitamin is formed in the grain and in the growing green sprouts. A method of causing grains to sprout is described in Sir McCarrison's "Food" as follows :—

"Dhal, gram, wheat, unsplit peas or any other grain is first soaked in water for 24 hours and is then spread out on damp earth or on a damp-blanket and covered over with the moist cloth or sack (gunny bag) which is kept moist by sprinkling water upon it from time to time. After 2 or 3 days the grains will have sprouted and be ready for use".

"The sprouted grains should be eaten raw or after cooking for not more than 10 minutes".

When fresh vegetables and fruits are not easily obtained, sprouted grains may be used as a cheap and easily available source of vitamin C. Sprouted pulses may contain 10-15 milligrammes of vitamin C per 100 grammes.

A well-balanced diet for school children and adults should contain some 30-50 mgs. of vitamin C per day. Vitamin C is sensitive to heat, and loss occurs in cooking, particularly if cooking is prolonged. Nevertheless, the inclusion of a few ounces of fresh fruit and leafy and other vegetables in a diet will ensure that its vitamin C content is satisfactory. In the case of infants fed on boiled fresh milk or re-constituted dried milk, special attention to vitamin C requirements is necessary. These can be met by giving fruit juice in small quantities.

Vitamin D.—Vitamin D, the vitamin which prevents rickets and osteomalacia, is found in liver and liver oils, egg yolk, and in milk fat (*e. g*, ghee) obtained from animals fed on green pastures and exposed to sunlight. Fish liver oil is its richest and natural source. Vitamin D is formed in the skin by the action of sunlight, and hence rickets is particularly apt to occur in infants kept in dark houses, while osteomalacia in India is often found in the North among women who keep purdah. Probably minor degree of rickets are more common in infants and young children throughout India than is generally supposed. Often, the cheapest and easiest way of supplying vitamin D is by exposure of the body to sunlight. Codliver oil and medicinal preparations of vitamin D cost money. The sun is free. There is close connection between vitamin D and calcium and phosphorus requirements. When little vitamin D is obtained, and at the same time insufficient calcium is present in the diet, the danger of rickets and osteomalacia is increased. This is an additional reason why attention must be given to calcium intake.

An abundant intake of Vitamin D helps to ensure the development of strong regular teeth. A good supply of this vitamin during pregnancy benefits the mother and helps to ensure the satisfactory future development of the child.

Personal Hygiene

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'Personal Hygiene' is a simple term denoting the welfare of an individual—his mental and bodily well-being. By its simplicity, we should not think that it may be given an ordinary place in our commonwealth of human beings. Our ideas and ideals of Public Health will be blown away like soap bubbles if they are not based on a sound foundation of Personal Hygiene.

The harmonious welfare of the several individuals, of the several families, of the several sects or tribes, of the several nations, forms what is called "Public Health." It is personal hygiene worked up with the consciousness of the duality of an individual and the existence of several individuals or units in this universe.

The end and aim of mankind in this universe is health and happiness, both mental and bodily. Happiness depends upon a healthy and harmonious working of the mind and body of the several individuals in this universe, and is maintained by personal cleanliness, contentment and well-being or by conscious personal hygiene of the several units.

We may here just glance with curiosity and conscious pleasure at one of the oldest of religions on earth—the Hinduism. Its daily prayer and the quintessence is contained in the following :—

> May all people be happy ;
> May all having existence acquire happy aspect.

From time immemorial, this has been the wish of rational beings and will continue till the end of the existence of rationality in this universe. This is the end and aim of the Hindu Religion and particularly of the cultured Brahminism, though Brahmins are nowadays abhorred as having selfish ideas and motives behind their stereotyped injunctions and actions. These injunctions and actions must be viewed with ulterior motives and must be developed into a harmonious whole, not dissected into sectarian units. They constitute the essence of Personal Hygiene, and the harmonious universal working of the principle constitutes Public Health.

It is always easy to attribute bad motives to one's speech, actions and ideas. Duality is the rule of the universe, the universe itself, and harmony in duality is the essence of the universe and of everything that can be seen, heard, felt, conceived of, or argued—male and female, light and darkness, music and disturbance, heat and cold, pleasure and sorrow, good and bad.

Man is a rational being. He is an individual. He is an individual by reason of his rationality which causes a hormonious working of his Duality. He will create "a Hell of Heaven, a Heaven of Hell" if his mental balance or harmony is upset, if he becomes insane. If he is dissected to show off his Duality, he is no more an

individual but a being and no being at the same time.

Mental harmony is essential for the welfare of an individual and for the welfare of his fellow-beings. Thus individuality carries with it both mental and bodily well-being of the person. It is thus obvious that Personal Hygiene is an essential attribute of an individual and the harmonious working of it, with the several individuals of this universe,constitutes what we call Public Health.

Having viewed so far at the magnitude of the importance of Personal Hygiene, it will be relevant now to consider how to acquire and preserve it.

We must remember that the bodily and mental welfare of an individual is not born with the individual, but is to be acquired. It is true that aptitude for acquiring the same is inherited and this inheritance is made the best use of by diligence, persistence and broad-mindedness. This inheritance is dependent on the essential qualities of the single ovum and of the single sperm which joined together either at advantage or at disadvantage. The Hindus, from time immemorial, knew the disadvantage of consanguinity in marriage and banned marriages of Sagotra individuals. They must have observed either by intuition or by experience that the defective tendencies in the ovum and sperm of a particular Gotra or descent would produce enhanced defects in the products of fertilisation, such as cleft palate, grave ocular defects, extra fingers or toes, or mal-development in the brain or in other parts of the body. It may seem chimerical to the readers to attribute to the Hindu ancestors such mythological powers of intuition or observation. But I would like to just pacify their minds and give food for thought by giving two queer examples from Hindu mythology.

The present-day scientists require special apparatus for radio-transmission both at the place of production of the voice or sound and at the place of reception; but Narada of the ancient Hindus was said to have tuned his own brain to hear and see as well, what were taking place in the remote corners of the universe. Deeper still is the blind faith of the Brahmins in converting an early developing foetus into a male one by performing a Mesmerising ceremonial called "Pumsa vana" with an injunction that it should be done within the third month of foetal life. What a wonderful coincidence with the Embryological knowledge of today! The Embryologists have fixed that the sex distinction of the foetus begins to be perceptible about the seventh week of foetal life. At about this time either the ovary or the testis is said to develop from the Genital Ridge which must have contained the essence of both the ovary and the testis and the Hindu belief is that the one can be made to supersede and annihilate the other by will-power. This much will suffice to prove the importance of Inheritance and Mind-control.

From the point of view of Personal Hygiene, we must develop a healthy mind and body. We must try to keep our body clean, and everything about us must have a decent aspect. This predisposes to cleanly habits of thinking on oneself and upon others. Regularity in bathing and dressing to keep our body clean and beautiful, and in eating proper food

in proper time to make our body grow to a beautiful personality, enable us to be conscious of our own existence and the existence of others with whom we have to associate with great pleasure. We have to give training to our mind by regularly praying to God and wondering at his greatness and at our own insignificance. This reverence goes a long way to respect our fellow beings and feel with them.

We must take sufficient exercises to keep our body fit and our mind healthy and must wish the same with others. Our body requires regularity in exercise and rest as well, in food and drink, in keeping our body clean and well dressed, and above all, in keeping ourselves agreeable to our surroundings. Waywardness will prove a great shortcoming in the maintenance of our bodily health and of our daily social life.

The idea of Personal Hygiene will be imperfect if we do not consider the sex and sex-instinct in the individual. About the ageo f 16 or 17, a boy acquires peculiar characteristics. Sexual impulses begin to tell upon his system, and his mind and body are kept in a state of nervous tension. His voice becomes hoarse and loud and manly. His body develops at unusually rapid rate. The external genitalia assume their peculiar development. The pubic hair, the moustache, the beard and the axillary hair make their appearance. He develops to a young man. In the case of a girl, she attains maturity between the ages of about 13 and 16, and like the boy, she is in a state of nervous tension, and is influenced by sex impulses. She begins to menstruate, her voice gets hoarse, her external genitalia develop, her mammary glands begin to grow rapidly and give an attractive shape to the breast. Pubic and axillary hairs make their appearance, but peculiar to her sex, she develops no moustache or beard (except under special ciscumstances of maldevelopment of sex-glands) and in every way she appears a counter part to the young man. At this stage, the boy steps to manhood and acquires the power of procreation, and the girl attains to womanhood and acquires the power to develop a fertilized ovum to a viable foetus. Before this stage, the general principles of personal hygiene govern both. But on attaining manhood or womanhood, they should not allow the body or mind to have free unbridled play. They should curb their impulses and be guided by the rules of morality of the society they belong to. They must remember that at this stage there is an instinctive attraction between the two sexes to neutralise the sudden sexual impulses unmindful of the after-effects. This animal instinct not only launches them into social dis-repute but is the surest way to make them mental as well as bodily decrepits. Even within limits of social rules man and woman must remember that procreation and gestation involve great mental and bodily strain to the progenitors and hence their processes should be within healthy limits.

This brings in the new problem of birth control which is of great importance to us from the standpoint of personal hygiene. The dangerous present-day method of birth control must be viewed with great concern. While the woman feels secure, the animal instinct in her gets an opportunity to gain the upper hand and the

man concerned, seated on his false security and proud of his unadulterated love to the woman, wastes his energy and unwittingly digs his own early grave.

The age-long experience of the ancient Hindus in the real power of personal hygiene must have taken shape in the hygienic divisions of the 4 Ashramas of their Shastras. In the first Bramhacharyashrama under strict tutelage they aim at development of the brain with complete control of the mind, and full conservation of energy. In the second Grahasthashrama with all rituals and observances of fasts and abstinence they aim at the propagation of the species to the best advantage with full control of the mind and body, and effective conservation of energy of the individual without the baneful effects of the present-day Birth-Control. In the third Ashrama of Vanaprastha the individual is a teacher to the previous two ashramites, or the younger generation who are feeling the nervous strain, and who get a mitigation of the strain by observing the healthy and happy Vanaprastha who has no attachment for the transient worldly pleasures. In the fourth Sanyasashrama the healthy, calm and contented individual meditating upon God with real pleasure is the highest peak in the successful development of personal hygiene.

The preservation of our personal hygiene depends upon the rigorousness with which we follow the hygienic rules of existence and prevail upon our fellow-beings to lead a healthy, hygienic life without annoying the feelings of one another. The attempt at the preservation of "Personal Hygiene" can be seen in the daily routine observances of the Brahmins though they are now prominent more by the breaches than by observances. Every Brahmin must take a cleanly bath, fortify one's body with suitable silk clothes, and the prominent parts with Gopeechandan plasters or cow-dung ash smears and perform prayer to God after meditating on the workings of his own body and mind, and then wish for the health and happiness of the whole universe. Then alone he can take his food joining with others. He should not take it at random. He must first pray to God and then take it in as if it is offered to God so that everything that he does must be done with full consciousness, regularity and fellow-feeling.

Thus, our concept of "Personal Hygiene" is the acquisition and preservation of individual health and happiness and fellow-feeling.

Breathing.

"Children should never be taught to breathe in through the nose and out through the mouth. There is danger in the open-mouth habit. The correct method is to breathe both in and out through the nose."—Dr. Somerville Hastings.

Care of the Sick

By Dr. Parma Nand Ahuja, M.B.,B.S.

Karachi.

It is sin to be sick but when sickness is on, it is a virtue to tend and nurse the sick back to health. Nursing of the sick person is an art that has been cultivated from times immemorial ever since the dawn of humanity. Nations in all countries and in all ages have differed in their methods and manner of looking after their sick and ailing inmates of their household. But it received its special emphasis and an organised form during the times of warfare when human beings descended to the level of the beasts and flew at each other's throats like wild animals of the jungle and rained death and destruction from land or air even on the civil populations maiming and laming old men, women and children by the thousands besides tens of thousands disabled and deformed in the firing lines. It was during these times of abnormal pressure when millions of these victims of warring humanity had to be looked after and cared for that the nursing profession received its greatest impetus and was evolved into a highly technical art and science so much so every woman who aspires te serve the sick has to qualify herself and undergo a regular course of training for 2 or 3 years both theoretical and practical.

Nursing as a Profession.—It is rather uufortunate that nursing as a profession has not caught the imagination or drawn the attention of as large a number of Indian ladies and educated girls as it ought to have. Undoubtedly, there are many reasons for this lack of interest shown by the Indian community not the least among them being lack of proper facilities and equal encouragement by those who are in charge of these nursing training institutions and some of whom go to the deplorable extent of creating invidious discrimination between the Indian and non-Indian section of the nursing staff both in the probationary grade and full-fledged cadre. But things ought to improve in this respect and fillip given to Indianisation of nursing staff in every big hospital now that popular Governments are in power in the provinces and educated Indian girls should come forward in larger numbers to take up their rightful place with their non-Indian compeers. Undeniably nursing as a profession entails a hard disciplined and sacrificing life and a missionary spirit on those who enter it and aspire te achieve the high ideals of this noble profession.

Home Nursing.—Apart from nursing as a profession every housewife should be familiar with simple principles and procedure for looking after a sick person. Woman is, by nature, endowed with abundant sympathy and milk of human kindness which make her the best companion of the sickbed. With common sense as her background she can be acquainted with the ordinary laws of health and hygiene and drug and diet ministration to the sick and the invalid to

help them in their recovery and recuperation. In the curriculum of every girl school and even in case of boys' school a preliminary course in home nursing will be profitable in laying the sound foundation of this essential domestic art that every mother of the nation must know and apply intelligently.

Pitfalls of Prejudice.—It has been the traditional pride of the Indian womanhood to nurse and nestle their young and the ailing members more fondly, tenderly and sympathetically than perhaps her sisters belonging to other races and nationalities. It is an intuitive and instinctive attribute which they have imbibed through the ages. But every intuition and instinct requires to be directed and guided along right channels by intelligent evolution and perfection of its primitive premises before it can be expected to avoid the pitfalls of prejudice, and wrong preconceptions and achieve the desired results. In her excessive fondness and love, an indulgent but uninitiated mother may close up all the doors and windows of the room in which her sick child lies or muffle him up in thick heavy clothing from top to toe and thus in her ignorance deprive her dear one of the very essential light, air and sunshine that he needs the most. Again she will religiously eschew to give fresh water to her child during an attack of bronchitis or Pneumonia when the whole body is burning with high temperature and when lips and throat are parched and dry, under the wrong impression that water will chill his chest and harm his lungs. If one child is lying ill with typhoid fever; other children will be freely allowed to mix with him and even partake of food or drink from the same tumbler or dish that has been used by the typhoid patients. A case of tuberculosis may be allowed to spit all over the floor and walls, and other inmates of the family permitted to come in close contact with him and make use of the dishes and utensils commonly used by the patient under the misguided notion that any precautions taken as regards isolation of the patient and free intercourse etc. would prejudicially affect him.

The Remedy.—Such instances could be multiplied indefinitely but exigencies of space do not permit me to do so. Suffice it to say that such wrong notions, ideas and perverse preconceptions can be dispelled by the light of knowledge and education of the women folk and enlightenment of the general mass of the people. The sooner it is done the better for all concerned. The schools, public health authorities and even public spirited medical men should co-operate in spreading this much needed knowledge to bring greater health and happiness in our homes. How much nursing may mean for life or death of the patient and is at times more important than any amount of medical treatment or advice.

By reason of his diet the Eskimo is more nearly strictly carnivorous than any other people of the world.—*Hygeia.*

Propaganda Points

Exercise

"ANY exercise taken on a poverty-stricken diet depresses fitness rather than raises it. This is ture of both animals and men."—Professor V. H. Mottram.

Fasting

"My own experience teaches me that even ordinary colds may be warded off by timely fasting."—Sir Henry Lunn, M.D,

Injections

"I doubt whether the poisonous effects of gold are sufficiently known. ...During the past six months I have heard of two cases of the treatment of arthritis by gold injection which terminated fatally."—Dr. Geoffrey Holmes.

Pathology

"To get a proper conception of pathology we must not separate one organ from the rest. We must remember the harmony that exists and must be preserved between the various organs and tissues. A good doctor must think physiologically and pathologically."—Lord Horder.—*Health for All.*

The Pillow for Sleeping

VERY frequently, headaches, neuritis, and pain in the neck may be traced to the custom of sleeping on high pillows. If any of these symptoms exist, one should give a trial to a thin pillow or to none at all. A hard pillow is, perhaps, best of all. A leather one, covered with clean linen, would be most conducive to rest and would probably avoid some of the difficulties of headache, tiredness, and pain generally caused by high or soft pillows.—*O. W.*

Rules for Mental Hygiene

DR. Frederick L. Paltry, in *Medical Times*, gives his decalogue of character which will help one to live wisely and well, keeping his mental balance. The decalogue seems to be incomplete, for there are only nine rules, which are:—

" 1. Keep physically fit.

" 2. Cultivate good habits.

" 3. Remove unnecessary stress and strain.

" 4. Face and frankly accept reality.

" 5. Plan a daily schedule of activities.

" 6. Ambition should contribute to doing.

" 7. Live in terms of ' we.'

" 8. Cherish a sense of humour.

" 9. Know yourself, accept yourself be yourself, improve yourself.

Overworked School Children

ACCORDING to Dr. Andrew W. Forrest (M. O. H., Leyton) the secondary school child who conscientiously performs all his allotted homework belongs to one of the overworked sedentary occupations. He writes: "Although education authorities have some control over the general hygienic conditions in schools, *e. g.* lighting, ventilation, etc., they do not concern themselves with the conditions in which the children have to work for two or three hours every night at home. Unfortunately these conditions are often so unsatisfactory as to impose a considerable strain on the health of the children; and it is in the case of such children, debilitated by the lack of fresh air and exercise, that the correction of existing defects is of

great importance. In after life a child may suffer no inconvenience whatever by the loss of much of the knowledge he has acquired in the classroom, but the loss of his health will assuredly prove a handicap to him all through life." Dr. Forrest thinks it should be recognised that the price of scholastic success is too great if it is bought at the expense of health.—*Medical Officer*.

The Olive Tree—A good Friend to Man

THE olive, besides being a highly valuable food, is conspicuous in myth and symbolism. Most notable of the ancient stories about it is that relating to the naming of Athens. The tree was sacred to Pallas Athene, the goddess of wisdom (Minerva to the Romans). She and Poseidon, the sea god (Neptune to the Romans), disputed as to which of them should give a name to the city. It was decided that the honour should go to the one who bestowed on man the most valuable gift. Poseidon created the horse. Pallas Athene the olive. Obviously she won.

J. Arnold Reid in the *Vegetarian News* tells comprehensively about the ancient and modern uses of the olive. The wood is excellent for carving and also serves for fuel. Under sunny skies the shade of the foliage is a protection for certain crops. The early Greeks and Romans, as well as the Jews, anointed their dead with olive oil. An olive branch has been regarded as the symbol of peace from early times to the present. The tree has also been the emblem of domestic plenty and national wealth. Brides wore or carried an olive garland as a talisman to bring them fruitfulness. The Roman emperor wore an olive crown at his triumphs.

Frequent reference is made to the olive in both the Old and the New Testaments. The trees now shown in the garden of Gethsemane at Jerusalem are said to date back to the time of Chirst. For some centuries the life of Tunis rested chiefly in the olive. In the first century B. C., this country was a desert. The soil and climate were not favorable for raising cereals but would grow olive trees, the roots of which could penetrate deep into the subsoil. So this fruit was widely cultivated, together with almonds, figs and grapes. Hundreds of prosperous villages were thus supported. But when nomadic Arabs in the seventh century cut down the trees, the country gradually reverted back to its former desert state.

This fruit originated in the Mediterranean region but has spread to many lands. The olive tree begins to bear at two years. Under proper cultivating and pruning, the yeild is much increased. For the extraction of oil the olives are gathered before they are quite ripe. They should not be bruised in the picking, as this affects the quality of the oil. The flesh, stone and seed kernel all contain oil. About sixty per cent comes from the meat, and this is also the best. The stones yeild an inferior product which is not much used for food but serves for lubrication, for burning and as an ingredient in soap.

Olive oil is highly valued as food. It is described as the easiest and least nauseating fat to take. Pickled olives are inferior in food value; the ripe article is very nourishing. The oil is mildly laxative and is used as an emollient and a protective for burns and skin disorders. Light affects the flavor of pure olive oil, hence it should be kept in a cool, dark place. If frozen it becomes cloudy but is not harmed. Application of a little heat will restore the normal appearance. Olive oil has been much adulterated but in this country at least this practice is now less common, owing to government interference.—*S.* — *Good Health* (*U. S. A.*).